Gulf of Mexico Alliance
Monitoring Standardization Workshop Summary
July 11, 2007

The Gulf of Mexico Alliance, Nutrient Reduction and Water Quality teams held a workshop on July 11th during the Alliance Implementation Workshop in St. Petersburg, Florida to initiate planning for a pilot effort to standardize monitoring methods for a core set of nutrient and water quality parameters across Gulf coastal ecosystems.

Purpose of standardization pilot effort:

- Adopt standardized methods for a core set of parameters by all Gulf States
- Develop a model in support of nutrient criteria development to understand causal and response variables consistently across the region
- Inform our understanding of individual system responses and monitoring design
- Provide information for Gulf systems to reach a simplified methodology for nutrient monitoring/assessment to support establishing nutrient criteria

The following notes summarize the parameters and methods discussed during the workshop.

Core Parameters and Methods Selected:

- Total Nitrite/Nitrate: EPA Method 353.2
- TKN: EPA Method 351.2
- Ammonia: EPA Method 350.1
- TN: Total Kjeldahl Nitrogen: EPA Method 351.2; Nitrate & Nitrite: EPA Method 353.2
- Urea: No approved method
- TP: EPA Method 365.1
- Ortho P: EPA Method 365.1
- DO: Calibration difference .3 mg/l
- Water Clarity: Secchi, turbidity (180.1 ntu), and photometer
- DOC/TOC: EPA Method 415.1
- BOD: 5210b, 5 day
- CBOD: 5210c

Comparison of Methods

Total Nitrite/Nitrate, Nitrite, Nitrate by subtraction
EPA Method 353.2
Texas uses EPA Method 353.3, which is equivalent

TKN
EPA Method 351.2
MS uses SM 4500, which is equivalent
Texas use EPA Method 351.3, equivalency unknown

Ammonia
EP Method 350.1

TN
Total Kjeldahl Nitrogen: EPA Method 351.2
Nitrate & Nitrite: EPA Method 353.2

Urea
No approved methods

TP
EPA Method 365.1
- LA uses 365.4, which is equivalent above certain detection limits
- MS uses Lachet 10115-01-01C, equivalency unknown
- TX uses EPA Method 365.3, which is equivalent

Ortho P
EPA Method 365.1
- AL most likely the same
- LA does not collect
- MS uses Lachett 31-115-01-1L
- TX uses EPA Method 300.0

DO
Calibration difference .3 mg/l
- AL, LA, and MS use .2 mg/l
- TX unknown

Water Clarity
Secchi, turbidity, photometer method
- Turbidity
  - 180.1 ntu
    - MS uses Manufacturer's guidelines, Hach 2100
    - TX uses Sm2130b, which is equivalent

DOC/TOC
EPA Method 415.1
- AL uses 415.2, equivalency unknown but has different detection limit
- MS uses EPA Method 5310d for TOC
- LA, MS, and TX do not regularly collect DOC

BOD
5210b, 5 day
- AL, LA, MS also use 405.1

CBOD
5210c
- MS uses 5210b and 450.1, equivalency unknown
- TX uses 410.2, equivalency unknown